

REMARKS

This response is intended as a full and complete response to the final Office Action mailed July 27, 2006. In the Office Action, the Examiner notes that claims 1-17 are pending, of which claims 1-8 and 11-16 are rejected, and claims 9, 10 and 17 are objected to.

Claims 11-17 have been cancelled, so the rejections of claims 11-16 and objection of claim 17 become moot.

Applicant thanks Examiner Nguyen for a phone discussion on September 7, 2006, in which Applicant clarified the distinction between the claimed invention and the cited references. No agreement was reached relating to the prior art rejections. Nonetheless, claims 1 and 5 have been amended to further clarify the invention, and claims 9-10 have been rewritten in independent form, incorporating the recitation of the amended claim 1. Claim 10 has also been amended to correct minor errors relating to antecedent basis.

New claims 18-25 have been added to depend, directly or indirectly, from amended claim 9. Since claim 9 is now in allowable form, dependent claims 18-25 are also allowable in their present form.

In view of the foregoing amendments and the following discussion, Applicant submits that none of the claims now pending in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §§102 and 103.

It is to be understood that, by amending the claims, Applicant does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response including amendments.

35 U.S.C. §102 Rejection of Claims 1-6, 8, and 11-16

Examiner has rejected claims 1-6, 8, and 11-16 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent 6,560,255 to O'Brien et al. (hereinafter "O'Brien"). Claims 11-16 have been canceled, and their rejections become moot. Examiner states that O'Brien discloses an apparatus for temperature stabilization of a wavelength of a laser. Applicant respectfully disagrees.

Applicant submits that O'Brien's apparatus and method are directed to the use of an external etalon as a wavelength reference to characterize a wavelength selectable laser having an internal etalon (e.g., col. 1, lines 7-10) - i.e., to determine the laser wavelength. For example, O'Brien teaches that a laser wavelengths can be selected or tuned by varying the temperature (e.g., see Fig. 2, col. 3, line 52-col. 4, line 6; and col. 4, line 62-col. 5, line 16), and the resulting wavelength can be determined by measuring and comparing the responses of the external etalon and the internal etalon (see, Fig. 3 and col. 5, line 17-col. 6, line 7). Based on the comparison, an internal etalon characteristic, e.g., the value of the internal etalon response at a laser wavelength, is stored in a look-up table (col. 5, line 61-col. 6, line 7).

However, there is no teaching or suggestion in O'Brien regarding the need to use this characteristic as a correction factor in operating the laser, e.g., defining a correction factor for temperature stabilization purpose, or more specifically, "defining a correction factor for the internal etalon based on a wavelength measurement made using an external meter; and operating a temperature control module for the laser at a set point to generate laser emission at a wavelength equal to a sum of the wavelength measured using the internal etalon and the correction factor," as recited in Applicants' claim 1.

Instead, O'Brien teaches, in Fig.2 and col. 4, lines 1-6, that temperature control of an optical subassembly 22 containing the laser is done by sending control commands to current driver 46 "according to temperature readings

received via temperature transducer 44 and a combination of internal etalon transducer 38 and internal reference transducer 42 readings". Note that all the transducers providing information for temperature control are those within the optical subassembly 22 - i.e., not involving the external etalon. This is in contrast to Applicants' invention, in which a correction factor is defined based on a wavelength measurement made using an external meter.

Furthermore, O'Brien does not teach using the internal etalon characteristic (obtained by comparison with the external etalon response), to define a correction factor for temperature control. This is not surprising, since the purpose of O'Brien is wavelength characterization of a laser module, rather than temperature stabilization, as in the present invention.

As for the inherency argument, Applicant disagrees with Examiner's position that "[s]ince claim 1 recites the same or identical elements/limitations it is inherent to use patent ('255) to recite the method of stabilization of a laser wavelength, product by process."

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original); see also MPEP §2112.

Thus, to rely on inherency in this case, it must be shown that certain element in Applicants' invention, e.g., the correction factor in claim 1, necessarily follows from the use of O'Brien's apparatus, or that Applicants' method is necessarily performed in the normal and usual operation of O'Brien's apparatus. This is certainly not true.

Since the purpose of O'Brien's invention is to provide "a method and apparatus for virtually instantaneous characterization of wavelength selectable laser products by using an external etalon as an absolute wavelength reference" (e.g., col. 1, lines 54-57), there is simply no reason why using O'Brien's

apparatus for wavelength determination would necessarily lead to the performance of Applicants' method, or the use of a "correction factor", which is designed for temperature stabilization - a purpose quite different from O'Brien's.

As such, Applicant submits that independent claim 1 is not anticipated by O'Brien, either explicitly or inherently, and are patentable under 35 U.S.C. §102.

Furthermore, claims 2-6 and 8 depend from independent claim 1 and recite additional limitations therefrom. As such and at least for the same reasons discussed above, Applicant submits that these dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Therefore, Applicant respectfully requests that the Examiner's rejection be withdrawn.

35 U.S.C. §103 Rejection of Claim 7

The Examiner has rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over O'Brien. Applicant respectfully traverses the rejection.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. However, for at least the reasons discussed above in response to the Examiner's §102 rejection, the O'Brien reference fails to teach or suggest all of the limitations recited in claim 1 and thus fails to teach or suggest Applicant's invention as a whole.

As such, Applicant submits that independent claim 1 is patentable over O'Brien and fully satisfies the requirements of 35 U.S.C. §103. Furthermore, claim 7 depends directly from independent claim 1 and recites additional limitations therefrom. As such and at least for the same reasons discussed above, Applicant submits that dependent claim 7 is also patentable over O'Brien and fully satisfies the requirements of 35 U.S.C. §103.

Therefore, Applicant respectfully requests that this rejection under 35 U.S.C. §103(a) be withdrawn.

ALLOWABLE SUBJECT MATTER

The Examiner has objected to claims 9, 10, and 17 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant thanks the Examiner for indicating the allowable subject matter with respect to claims 9, 10, and 17. Claim 17 has been canceled, and claims 9-10 have been rewritten in independent form, incorporating the recitation from the amended claim 1. Accordingly, Applicant respectfully requests that the foregoing objections to claims 9-10 be withdrawn.

CONCLUSION

Thus, Applicant submits that none of the claims presently in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §§102 and 103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, at (732) 530-9404, so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 9/25/08

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